



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,647	09/29/2004	Gueorgui Momtchilov	2006579-0314	5646
69665	7590	10/21/2008	EXAMINER	
CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC. TWO INTERNATIONAL PLACE BOSTON, MA 02110				FAN, HUA
ART UNIT		PAPER NUMBER		
2456				
MAIL DATE		DELIVERY MODE		
10/21/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/711,647	MOMTCILOV ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	HUA FAN	2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 11 September 2008.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20,23-53 and 56-76 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-20, 23-53 and 56-76 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

This office action is in response to the Amendment/Remarks filed on 9/11/2008. Claims 1-20, 23-53 and 56-76 are pending. Claims 1-4, 11-16, 23-53, 56-68, and 74-76 have been amended. Claims 21-22 and 54-55 have been cancelled. No new claim has been added.

### ***Response to Arguments***

1. Applicant's arguments filed 9/11/2008 have been fully considered but they are not persuasive. All arguments including those that directed to the newly added limitations have been addressed and responded to in the following rejections to the corresponding claims.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: For example: The recitation of “computer readable medium” in claims 34-43, 44-53, 56, 57-65, and 66 lacks antecedent basis in the specification.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 34-43, 44-53, 56, 57-65, and 66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation cited in claims 34-43, 44-53, 56, 57-65, and 66, “computer

readable medium" does not find support in the originally filed application. The applicant is suggested to cancel the new matter.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

6. Claims 34-43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 34 defines a **computer readable program** embodying functional descriptive material. However, the claim does not define a "computer-readable medium or computer-readable memory" that the computer readable program is recorded on, and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the

presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on “computer-readable medium” or equivalent; assuming the specification does NOT define the computer readable medium as a “signal”, “carrier wave”, or “transmission medium” which are deemed non-statutory (refer to “note” below). Any amendment to the claim should be commensurate with its corresponding disclosure.

Note:

“A transitory, propagating signal … is not a “process, machine, manufacture, or composition of matter.” Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter.” (*In re Petrus A.C.M. Nuijten*; Fed Cir, 2006-1371, 9/20/2007)

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a “signal”, the claim as a whole would be non-statutory. Should the applicant’s specification define or exemplify the computer readable medium or memory (or whatever language applicant chooses to recite a computer readable medium equivalent) as statutory tangible products such as a hard drive, ROM, RAM, etc, as well as a non-statutory entity such as a “signal”, “carrier wave”, or “transmission medium”, the examiner suggests amending the claim to include the disclosed tangible computer readable storage media, while at the same time excluding the intangible transitory media such as signals, carrier waves, etc. No new matter should be entered.

#### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 10-12, 15, 23, 34, 36, 43-45, 48, 56 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al (EP 1187022), in view of Soin et al (US publication 2005/0091302).

As to claim 1, Arteaga et al. discloses a method for handling events occurring at a client ([0042]), said method comprising:

- (a) providing a client communicating with a server over a network (figure 1);
- (b) detecting an event notification regarding a device in communication with the client ([0042], “When a Hardware Event or a User-Control Event occurs at the client device 12I, the client device sends a data message to the application 13I to identify the event and any accompanying parameters that further specify the event or data that is associated with the event”);
- (c) redirecting said event notification to the server from the client ([0042], “When a Hardware Event or a User-Control Event occurs at the client device 12I, the client device sends a data message to the application 13I to identify the event and any accompanying parameters that further specify the event or data that is associated with the event”), and
- (d) receiving, from the server, in response to the redirection of the event notification, a command directed to said device ([0042]-[0044], see especially paragraph [0044], “upon receipt of event messages from client device 12I, application 13I performs the processing specified by the commands in the application program...this processing culminates with a change to the user interface...Such change to the user interface accordingly is transmitted from the application 13I to the client device 12I”).

Arteaga et al. does not expressly disclose the events are plug-and-play events. Soin et al. discloses detecting plug-and-play events ([0112]-[0113]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding detecting plug-and-play events. The suggestion/motivation of the combination would have been to discover devices (Soin et al., [0029]).

Arteaga et al. does not expressly disclose the communication between client and server uses presentation-level protocol. Soin et al. discloses the communication between client and server uses presentation-level protocol (“RDP” [0092]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding using presentation-level protocol for communication between client and server. The suggestion/motivation of the combination would have been to support different types of network topologies and multiple LAN protocols (Soin et al., [0073]).

As to claim 3, Arteaga et al. discloses the claimed invention substantially as claimed as discussed in claim 1, but does not expressly disclose the redirecting said event notification is via a virtual channel. Soin et al. disclose using virtual channel to redirect events ([0074]; [0079]-[0081])

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding using virtual channel to redirect events. The suggestion/motivation of the combination

would have been to support different types of network topologies and multiple LAN protocols (Soin et al., [0073]).

As to claim 10, Arteaga-Soin et al discloses the device in communication with the client uses one of the USB (Universal Serial Bus) protocol, IEEE 1394 protocol, Bluetooth protocol, wi-fi protocol, wireless protocol, and infrared (IR) protocol to communicate with the client (Soin et al., wireless protocol, [0003]; [0008]; [0021]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding using wireless protocol for communication between the device and the client. The suggestion/motivation of the combination would have been to allow easy access for mobile users, provide an easy connection where a wired solution is not practical (Soin et al., [0101]).

As to claim 11, Arteaga et al. discloses a method for handling events occurring at a client in communication with a server ([0042]; figure 1), said method comprising the steps of:

- a) receiving from said client an event notification regarding a device in communication with the client ([0042]);
- b) notifying an application program hosted by the server of the occurrence of the event notification ([0042]);
- c) receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server, the command directed to the device ([0042]-[0044], see especially paragraph [0044], “upon receipt of event messages from client device 12I, application 13I performs the processing specified by the commands in the application

program...this processing culminates with a change to the user interface...Such change to the user interface accordingly is transmitted from the application 13I to the client device 12I"); and

d) transmitting to the client a command directed to the device ([0043]-[0044]).

Arteaga et al does not expressly disclose detecting plug-and-play events. Soin et al. discloses detecting plug-and-play events ([0112]-[0113]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding detecting plug-and-play events. See similar motivation in claim 1 rejection.

Arteaga et al. does not expressly disclose the communication between client and server uses presentation-level protocol. Soin et al. discloses the communication between client and server uses presentation-level protocol ("RDP" [0092]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding using presentation-level protocol for communication between client and server. See similar motivation in claim 1 rejection.

As to claim 12, see similar rejection to claim 3.

As to claim 15, Arteaga-Soin discloses the method of claim 11 wherein notifying an application program further comprises: transmitting the event notification to applications communicating with the server within the session (Arteaga, [0042]).

As to claim 23, Arteaga et al. discloses a method for handling events occurring at a client in communication with a server ([0042]), said method comprising:

- a) receiving from said client an event notification regarding a device in communication with the client ([0042]);
- b) notifying an application program hosted by the server of the occurrence of the event notification ([0042]);
- c) receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server a command directed to the device ([0042]-[0044], see especially paragraph [0044], “upon receipt of event messages from client device 12I, application 13I performs the processing specified by the commands in the application program...this processing culminates with a change to the user interface...Such change to the user interface accordingly is transmitted from the application 13I to the client device 12I”); and
- d) transmitting to the client a command directed to the device ([0043]-[0044]).

Arteaga et al. does not expressly disclose the communication between client and server uses presentation-level protocol. Soin et al. discloses the communication between client and server uses presentation-level protocol (“RDP” [0092]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. with the method disclosed by Soin et al. regarding using presentation-level protocol for communication between client and server. See similar motivation in claim 1 rejection.

Claims (34, 36, 43-45, 48, 56) are computer readable medium claims corresponding to method claims (1, 3, 10-12, 15, 23). Therefore they have been analyzed and rejected based upon method claims respectively.

9. Claims 2, 4, 13-14, 16, 35, 37, 46-47, and 49 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., as applied to claim 1 above, and further in view of Lueckhoff et al (US patent 7171478).

As to claim 2, Arteaga et al. in view of Soin et al. discloses transmitting the event notification to the server using virtual channel (Arteaga et al., [0042]; Soin et al., [0074]). However, Arteaga et al. in view of Soin et al. does not expressly disclose generating context identifier and binding the context identifier to the event notification. Lueckhoff et al. discloses generating context identifier (abstract; col. 7, line 41 – col. 8, line 6) and binding the context identifier to the event notification, and sending the bound event notification to server (col. 8, line 56 – col. 9, line 11).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Lueckhoff et al. regarding generating context identifier and binding the context identifier to the event notification, and sending the bound event notification to server. The suggestion/motivation of the combination would have been to couple session management for the user context with that of application on server (Lueckhoff et al., col. 7, lines 55-57).

As to claim 4, Arteaga et al. in view of Soin et al. discloses issuing a command to the identified device (Arteaga et al., ([0042]-[0044])). However, Arteaga et al. in view of Soin et al. does not expressly disclose a generated context identifier; identifying the device using the context identifier. Lueckhoff et al. discloses receiving from a server a command including a generated context identifier (col. 7, line 49 – col. 8, line 6) and identifying the event source using the context identifier (col. 7, line 49 – col. 8, line 6).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Lueckhoff et al. regarding generating context identifier and binding the context identifier to the event notification, and sending the bound event notification to server. See similar motivation in claim 2 rejection.

As to claim 13, see similar rejection to claim 2.

As to claim 14, Arteaga et al. discloses creating a server-unique name to identify the device connected to the client that generated the event notification ([0042]). Arteaga et al. in view of Soin et al. does not expressly disclose using server unique name to map the client device to a specific session on the server established by the presentation level protocol. Lueckhoff et al. discloses using server unique name to map the client event source to a specific session on the server (col. 7, line 49 – col. 8, line 6).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Lueckhoff et al. regarding server unique name to map the client event source to a specific session on the server. See similar motivation in claim 2 rejection.

As to claim 16, Arteaga et al. in view of Soin et al. does not disclose transmitting the event notification only to applications communicating with the server which have previously registered a callback for a type of event causing the event notification. Lueckhoff et al. discloses transmitting the event notification only to applications communicating with the server which have previously registered a callback for a type of event causing the event notification (col. 7, line 59 – col. 8, line 15; col. 9, lines 22-46).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Lueckhoff et al. regarding transmitting the event notification only to applications communicating with the server which have previously registered a callback for a type of event causing the event notification. The suggestion/motivation of the combination would have been to invoke the appropriate application on the server (Lueckhoff et al., col. 7, lines 60-62).

Claims (35, 37, 46-47, 49) are computer-readable medium claims corresponding to method claims (2, 4, 13-14, 15) respectively. Therefore they have been analyzed and rejected based upon method claims respectively.

10. Claims 5, 7, 17, 19, 38, 40, 50, and 52 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of US Soin et al., as applied to claim 1 above, and further in view of Coppinger et al (US patent 6982656).

As to claim 5, Arteaga et al. in view of Soin et al. does not expressly disclose the method of claim 1 wherein said event notification is generated as a result of a device arrival. Coppinger et al. discloses transmitting a mobile asset arrival message to server (abstract; figure 1, 3).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Coppinger et al. regarding transmitting a mobile asset arrival message to server. The suggestion/motivation of the combination would have been to monitor and report the status of a mobile asset (Coppinger et al., abstract, lines 1-4).

As to claim 7, Arteaga et al. in view of Soin et al. does not expressly disclose the method of claim 1 wherein said event notification is generated as a result of a device removal. Coppinger et al. discloses transmitting a mobile asset departure message to server (abstract; figure 1, 3).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. with the method disclosed by Coppinger et al. regarding transmitting a mobile asset departure message to server. See similar motivation in claim 5 rejection.

As to claim 17, see similar rejection to claim 5.

As to claim 19, see similar rejection to claim 7.

Claims (38, 40, 50, 52) are computer-readable medium claims corresponding to method claims (5, 7, 17, 19). Therefore they have been analyzed and rejected based upon method claims respectively.

11. Claims 6, 8, 18, 20, 39, 41, 51, and 53 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., and Coppinger et al., as applied to claim 5 above, and further in view of Ferlitsch (US publication 2002/0114004).

As to claim 6, Arteaga et al. in view of Soin et al. and Coppinger et al. does not disclose the method of claim 5 wherein said command is an open command. Ferlitsch discloses server sends an open command to device ([0084]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. and Coppinger et al., with the method disclosed by Ferlitsch regarding server sends an open command to device. The suggestion/motivation of the combination would have been to enable a three-way printing

source/server/printing device communicating using a virtual socket concept (Ferlitsch, [0084], lines 1-3).

As to claim 8, Arteaga et al. in view of Soin et al. and Coppinger et al. does not disclose the method of claim 5 wherein said command is a close command. Ferlitsch discloses server sends a close command to device ([0084]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. and Coppinger et al., with the method disclosed by Ferlitsch regarding server sends a close command to device. See similar motivation in claim 6 rejection.

As to claim 18, see similar rejection to claim 6.

As to claim 20, see similar rejection to claim 8.

Claims (39, 41, 51, 53) are computer readable medium claims corresponding to method claims (6, 8, 18, 20). Therefore they have been analyzed and rejected based upon method claims respectively.

12. Claims 9 and 42 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., as applied to claim 1 above, and further in view of Ferlitsch (US publication 2002/0114004).

As to claim 9, Arteaga et al. in view of Soin et al. does not expressly disclose the method of claim 1 wherein said event notification is associated with at least one of a GUID, vendor ID, product ID and actual device name. Ferlitsch discloses message is associated with at least one of a GUID, vendor ID, product ID and actual device name (figure 12-13).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al., with the method disclosed by Ferlitsch message containing device name. The suggestion/motivation of the combination would have been to provide message source information (Ferlitsch, [0094], lines 4-6).

Claim 42 is a computer readable medium claim corresponding to method claim 9. Therefore it has been analyzed and rejected based upon method claim.

13. Claims 24, 26, 57, 59, 67-68, and 75 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., as applied to claim 1 above, and further in view of Morris (US publication 2002/0159419).

As to claim 24, Arteaga et al in view of Soin et al disclose a method for informing a server about the presence of devices connected to a client, said method comprising:

- (a) providing a client communicating with a server over a network using a presentation-level protocol;
- (b) detecting a plug-and-play event notification regarding a device in communication with the client;
- (c) redirecting said event notification to the server over a network; and
- (d) receiving, in response to the redirection of the event notification, a command from the server, the command directed to said device (See similar rejection to claim 1 above).

However, Arteaga et al. in view of Soin et al. does not expressly disclose emulating a plug-and-play event notification. Morris discloses emulating plug-and-play event ([0020]-[0021]; [0023], lines 20-25).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al., with the method disclosed by Morris regarding emulating a plug-and-play event notification. The suggestion/motivation of the combination would have been to take advantage of USB technology, particularly the “plug and play” capability, to simplify the installation and use of Bluetooth-enabled and other wireless peripherals (Morris, [0010]).

As to claim 26, see similar rejection to claim 3.

Claims (57, 59) are computer readable medium claims corresponding to method claims (24, 26). Therefore they have been analyzed and rejected based upon method claims respectively.

As to claim 67, Arteaga et al in view of Soin et al. disclose a method for detecting devices communicating with a client that have been mapped into a session on a server (Arteaga et al., [0042]; Soin et al., [0089], see similar rejection to claim 1), said method comprising the steps of: launching an application in a user session on a server intercepting device notification in the server-based user session (Arteaga et al., [0042]-[0043]); redirecting the device notification to the server (Arteaga et al., [0042]); and notifying said application hosted by the server of the occurrence of the event notification (Arteaga et al., [0042]), and

receiving, in response to notification of the occurrence of the event, a command from the application hosted by the server, the command directed to the at least one device ([0042]-[0044]), see especially paragraph [0044], “upon receipt of event messages from client device 12I, application 13I performs the processing specified by the commands in the application

program...this processing culminates with a change to the user interface...Such change to the user interface accordingly is transmitted from the application 13I to the client device 12I").

Arteaga et al. in view of Soin et al. does not expressly disclose an enumerating device method. Morris discloses a method of detecting one or more peripheral devices ([0020]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al., with the method disclosed by Morris regarding detecting one or more peripheral devices. See similar motivation in claim 24 rejection.

Arteaga et al. in view of Soin et al. does not expressly disclose an arrival event notification or emulating an arrival event for at least one device enumerated by the redirected method, said device being a device in communication with a client system that was mapped into the user session prior to said application launch. Morris discloses an arrival event detection ([0009], "detects the attachment of a device to a USB port") and emulating plug-and-play events ([0020]-[0021]; [0023], lines 20-25. It is to be noted that the plug-and-play event is an arrival event).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al., with the method disclosed by Morris regarding emulating a plug-and-play event notification. See similar motivation in claim 24 rejection.

As to claim 68, Arteaga et al in view of Soin et al disclose a method for handling plug-and-play events occurring at a client, said method comprising:

- (a) detecting a plug-and-play event notification regarding a device communicating with the client;
- (b) redirecting said event notification to a server over a network; and
- (c) receiving, in response to the redirection of the event notification, a command from the server, the command directed to said device (See similar rejection to claim 1).

However, Arteaga et al. does not expressly disclose USB connection between the device and the client. Morris discloses a USB connection between device and client (abstract).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al., with the method disclosed by Morris regarding USB connection. See similar motivation in claim 24 rejection.

As to claim 75, see similar rejection to claim 3.

14. Claims 69 and 71 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., and Morris, as applied to claim 68 above, and further in view of Coppinger et al (US patent 6982656).

As to claim 69, see similar rejection to claim 5.

As to claim 71, see similar rejection to claim 7.

15. Claims 70 and 72 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., Morris, and Coppinger et al., as applied to claim 69 above, and further in view of Ferlitsch (US publication 2002/0114004).

As to claim 70, see similar rejection to claim 6.

As to claim 72, see similar rejection to claim 8.

16. Claim 73 is rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., and Morris, as applied to claim 68 above, and further in view of Ferlitsch (US publication 2002/0114004).

As to claim 73, see similar rejection to claim 9.

17. Claims 25, 27-31, 58, 60-64, 74, and 76 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., and Morris, as applied to claim 24 above, and further in view of Lueckhoff et al (US patent 7171478).

As to claim 25, see similar rejection to claim 2.

As to claim 27, see similar rejection to claim 4.

As to claim 28, see similar rejection to claim 3.

As to claim 29, see similar rejection to claim 2.

As to claim 30, see similar rejection to claim 15.

As to claim 31, see similar rejection to claim 16.

Claims (58, 60-64) are computer readable medium claims corresponding to method claims (25, 27-31). Therefore they have been analyzed and rejected based upon method claims respectively.

As to claim 74, see similar rejection to claim 2.

As to claim 76, see similar rejection to claim 4.

18. Claims 32-33 and 65-66 are rejected under 35 U.S.C. 103(a) as unpatentable over Arteaga et al., in view of Soin et al., and Morris, as applied to claim 24 above, and further in view of Lueckhoff et al (US patent 7171478).

As to claim 32, Arteaga et al. in view of Soin et al. and Morris does not expressly disclose client is a proxy client on a server interfacing with at least one additional server. Lueckhoff et al. discloses a proxy client on a server and server interfaced with at least one additional server (figure 3, 5-6; col. 6, lines 4-31).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. and Morris, with the method disclosed by Lueckhoff et al. regarding a proxy client on a server and server interfaced with additional server. The suggestion/motivation of the combination would have been to use proxy to serve as intermediaries between server and external components (Lueckhoff et al., col. 6, lines 4-7).

As to claim 33, Arteaga et al in view of Soin et al. and Morris disclose a method for informing a server about the presence of network resources, said method comprising the steps of:

- a) emulating a plug-and-play event notification regarding a network resource in communication with the proxy client;
- b) redirecting said emulated event notification to a server; and
- c) receiving, in response to the redirection of the event notification, a command from the server, the command directed to said network resource (See similar rejection to claim 24).

However, Arteaga et al. in view of Soin et al. and Morris does not disclose a proxy client. Lueckhoff et al. discloses a proxy client (figure 3, 5-6; col. 6, lines 4-31).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the method disclosed by Arteaga et al. in view of Soin et al. and Morris, with the

method disclosed by Lueckhoff et al. regarding a proxy client. See similar motivation in claim 32 rejection.

Claims (65-66) are computer readable medium claims corresponding to method claims (32-33). Therefore they have been analyzed and rejected based upon method claims respectively.

***Conclusion***

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUA FAN whose telephone number is (571)270-5311. The examiner can normally be reached on M-F 9am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. F./  
Examiner, Art Unit 2456

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2456